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Having purchased Mr. E. J. Buell's cactus garden, and nearly the whole of Mr. A. H. Alverson's stock of cacti and succulents, together with importations of more than 20,000 cacti from Mexico, we can now offer a great variety at moderate prices—quoted on application.

We desire to exchange for books and plants not in our garden.

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CACTACEAE.

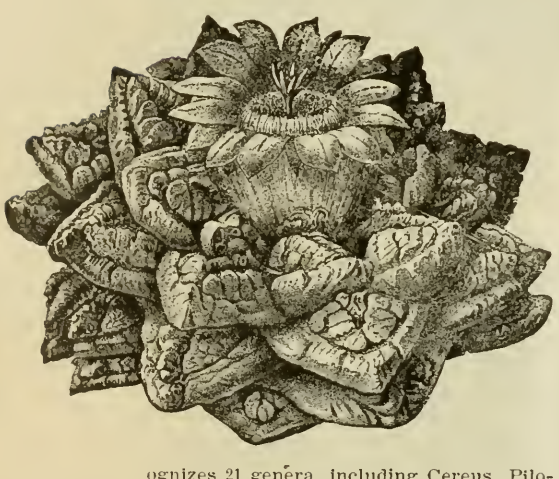
Many people who have been acquainted only with the prickly pear and the cholla cactus of the plains—perhaps to the detriment of their epidermis, will be surprised to learn that over one thousand valid species exist, to which more than three thousand names have been applied by botanists and horticulturists.

The following is a nearly complete list of known species, and a few synonyms are also given. Descriptions of all will be published eventually we hope, but this contains much never published, at least in English, and in this form will be useful to many.

Tribe ECHINOCACTEAE.

Calyx tube produced beyond the ovary; stem covered with elongated tubercles or ribs, rarely leafy (except when young).

Karl Schumann, in his monograph, rec-



ognizes 21 genera, including Cereus, Pilocereus, Cephalocereus, Phyllocactus, Epiphyllum, Echinopsis, Echinocereus, Echinocactus, Melocactus, and Leuchtenbergia in this tribe, in the order named, making a separate tribe for Mammillaria, Pelecyphora, and Ariocarpus. Pilocereus, Cephalocereus, Echinopsis, and Echinocereus are better kept as sections of Cereus; Epiphyllum as a section of Phyllocactus; Ariocarpus (Anhalonium) as a section of Mammillaria His other genera are divided into 3 tribes, Rhipsalideae, of 3 genera—Pfeiffera, Hariota and Rhipsalis (best treated as one); Opuntieae, of 3 genera—Opuntia, Nopalea and Pterocactus (the 2 latter of doubtful value); and Peireskieae, including Peireskia and Maihuenia.

Genus ANHALONIUM Lemaire.

A. AREOLOSUM Lem.

A. ASELLIFORME Web.

A. elongatum S, is prismaticum.

A. fissipedum Monv, is sulcatum.

ANHALONIUM FISSURATUM E.

Anhalonium Engelmanni Lemaire Cact 42 (1868).

Living Rock, found in Texas and Mexico. "Upper and exposed part of tubercle triangular in outline, convex, carinate and almost smooth below, convex and variously fissured and thereby verrucose above, sharp and crenate on the edges."—Engelmann.

A. furfuraceum Wat, is prismaticum.

A. jourdanianum Reb, is Echinocactus Williamsii.

A. kotschoubeyanum Lem, is sulcatum.

A. Lewinii Hennings, is Echinocactus Williamsii.

A. PRISMATICUM Lem.

Simple, top flattened or depressed, more rarely hemisphaerical, center densely tomentose, 4-8 inches in diameter, 1-2 (rarely 4) inches above ground, the large root 4-6 inches below the surface with few coarse fibrous roots; tubercles triangular, acute with a cartilaginous tip, or obtuse, often ending in a minute depression or tomentose areola, spineless, the keel often with a strong shoulder, 1-3 inches long, often as wide, axils with long dense wool, upper surface smooth or often more or less roughened; flowers white to rose, 1 inch long, sepals brownish; fruite clavate, scarlet, chow-tee of the Indians, or peyote (a name more commonly restricted to Echinocactus Williamsii). The minute areolae are sometimes placed on the upper surface of the tubercles near the end, or often absent. San Luis Potosi (Orcutt 2807), where numerous specimens exhibit all the variations necessary to connect several alleged species. The type of Watson's Mammillaria furfuracea was collected at Carneros Pass, Coahuilla (Pringle 2580).

A. pulvilligerum Lem, is prismaticum.

A. retusum S. is prismaticum.

ANHALONIUM RUNGEI Hildm.

Sandy loam, in the foot of high mountains, Coahuila (C. Runge).

A. SULCATUM S.

A. TRIGONUM Web.

A. turbinofirme Web.

A. williamsii F, is Echinocactus Williamsii Lem.

Genus APOROCACTUS Lemaire.

A. Baumannii Lem, is Cereus Baumannii Lem fide KS.

A. colubrinus Lem, is Cereus Baumannii fide KS.

A. flagelliformis Lem, is Cereus flagelliformis Mill fide KS.

Genus ARIOCARPUS Scheidw.

Karl Schumann revives this name in his publications, but we prefer to retain the name Anhalonium, which has been in universal use, among botanists and horticulturists alike, for more than fifty years.

A. aselliformis Web, is Anhalonium aselliforme
A. fissuratus KS, is Anhalonium fissuratum.
A. Kotschubeyanus KS. is Anhalonium sulcatum.
A. retusus Scheidw, is Anhalonium prismaticum Lem.
A. sulcatus KS, is Anhalonium sulcatum.
A. trigonus KS, is Anthalonium trigonum
A. Williamsii Voss, is Echinocactus Williamsii.

Genus ASTROPHYTUM Lemaire.

A. asterias Lem Cact 50, based on Echinocactus asterias.

A. capricorne Hort, based on Echinocactus capricornis.

ASTROPHYTUM MYRIOSTIGMA Lem.

The Bishop's Hood; an odd and beautiful spineless plant from Mexico, resembling a piece of carved stone.

A. prismaticum Lem. Cact 50, error for myriostigma.

CACTUS ALTERNATUS Coulter.

"Subglobose, 10 cm. in diameter, simple; tubercles long (15-20 mm) and spreading, with woolly axils: radial spines 3, rigid and recurved, 5 mm long; central spines 3, very stout and much recurved, 20-30 mm long, alternating with the radials; all ashy colored and often twisted: flower and fruit unknown: Type, in Herb. Coulter. San Luis Potosi (Eschauzier of 1891)."—Coulter Cont U S Nat Hb 3:95

CACTUS BRUNNEUS Coulter.

"Obovate-cylindrical, 3 by 6 cm, simple, tubercles ovate, grooved to the base, 5-6 mm long, with woolly axils: radial spines 11-15, spreading, rather rigid and brownish (lighter with age), 8-10 mm long; central spine much larger, 20 mm long, hooked: flower and fruit unknown. Type in Herb. Coulter. San Luis Potosi (Eschauzier of 1891)."—Coulter Cont U S Nat Hb 3:117.

CACTUS DENSISPINUS Coulter.

"Globose, 7.5 cm in diameter, simple: tubercles short, with woolly axils: radial spines about 25, erect-spreading, slender but rigid, yellow (brownish to black with age), unequal, 8-10 mm long; central spines 6, a little longer (10-12 mm) and straight, more rigid and darker, black tipped: seeds obovate, reddish-brown, 2 mm long. Type in Herb. Coulter. San Luis Potosi (Eschauzier of 1891). Very easily distinguished by its dense, erect spines, which so completely cover the plant as to give it the appearance of a large chestnut burr."—Coulter Cont U S Nat Hb 3:96-97.

Mammillaria castanoides, M. Wegneri M. densispina, and M. fuscata, are probably all identical with this species.

CACTUS ESCHAUZIERI Coulter.

"Depressed-globose, 3 cm in diameter, simple: tubercles broader at base, 6-8 mm long, with naked axils: spines all pubescent; radials 15-20, with dusky tips, the lateral 10-12 mm long, the lower weaker, shorter and curved, the upper shorter, solitary central spine reddish, slender, somewhat twisted, usually hooked upwards, 15-20 mm long: flowers red (?): fruit reddish (?), ovate, about 10 mm long: seeds reddish, oblique-obovate, 1.2 mm long, pitted, with subventral hilum. Type in Herb. Coulter. San Luis Potosi (Eschauzier of 1891)."—Coulter Cont U S Nat Hb 3:104.

CACTUS MACULATUS Coulter.

cm, simple: t

"Obovate-cylindrical, 6 by 8 cm, somewhat cespitose: tubercles ovate, terete, 10 mm long, grooved to the base, with naked axils: radial spines 10 or 11, straight and spreading, rigid, blackish (becoming ashy with age), black-tipped, 12 mm long: central spine large, more or less spotted, erect, 25-35 mm long: flower 13 mm long, pinkish: fruit unknown. Type in Herb. Coulter, San Luis Potosi (Eschauzier of 1891)."—Coulter Cont U S Nat Hb 3:117.

CACTUS PRINGLEI Coulter.

"Globose (?), 5 cm in diameter: tubercles short-conical, about 6 mm long, with very woolly axils: radial spines 18-20, setaceous-bristly and radiant, 5-8 mm long, central spines 5-7 (usually 6), stout and horny, more or less recurved, spreading 20-25 mm long; all straw-colored, but the centrals darker: flowers deep red (darker, even brownish outside), 8-10 mm long: fruit unknown. Type, Pringle of 1891 in Herb. Gray."—Coulter, Cont U S Nat Hb 3:109.

Genus CEPHALOCERUS Pfeiffer.

C. CHRYSOMALLUS KS.

Erect, branching like a candelabra, 10-15 feet high ,stems 3-6 inches in diameter:

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CEREUS GIGANTEUS Engelm.

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CEREUS TRIANGULARIS Miller.

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ECHINOCACTUS GRUSONII Hildm.

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CEREUS MARGINATUS DC.

young plants with 17 obtuse ribs and deep intervals, 12-13 ribs in older plants and more obtuse, areolae ⅛ inch apart; 10-12 radial spines, slender, straw-colored, centrals 4-5, the lower one the longest, the upper portion of the older or floriferous stems supplied with numerous ciliary white spines, especially abundant on the side where the flowers are produced: flower 2 inches across, 3 inches long (including the ovary); about 25 long narrow scales on ovary with 6-12 fine white hairs ½-1 inch long in the axils, ovary apple green; petals about 20,8-10 mm broad, nearly 20 long, acute, white; sepals equally numerous, brownish white; style 2½ inches long, whitish, nearly equalling the petals; filaments white, anthers an eighth inch long and pale yellow. Flower deeply embedded in a mass of persistent hairs an inch long and of a snowy white—tinged with yellow occasionally at the tips. Fruit nearly globular, 1½ inches long, dull purple with a bluish bloom; remains of flower persistent; the minute scales and hairs abundant or nearly absent; outer skin ¼ inch thick, dull purple, the edible pulp bright magenta, rather insipid, sweetish, seeds black. Vieja, or Old Woman cactus of the Mexicans. States of Puebla and Oaxaca, Mexico (Orcutt 2679, 2679).

C. COLUMNA-TRAJANI KS.

Erect, 15-20 feet high, 2-3 short branches slightly divergent from the main stem a few feet from the ground: 5-7 radial spines one-fourth to three-fourths inch long, 1 central ½-2 inches long, rarely a shorter central or radial above; radials laterally disposed except the lowest, all ashy black. Ribs 11-13 in young plants, obtuse with shallow intervals. Te-te-cho of the Mexicans, who describe the fruit as sweet and edible, the flower as red. States of Puebla and Oaxaca, Mexico (Orcutt 2706).

C. Hoppenstedtii KS, is Pilocerus Hoppenstedtii Web fide KS.

C. MACROCEPHALUS Web.

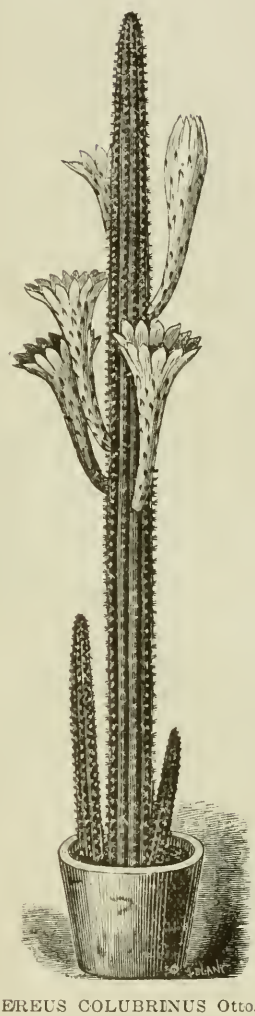
C. MELOCACTUS KS.

C. SENILIS Pf.

Genus CEREUS Haworth.

"Flowers about as long as wide or elongated. Scales of the ovary distinct, with naked or woolly axils, or almost obsolete and the axils spiny. Berry succulent, covered with spines or scales or almost naked. Seeds black, without albumen. Embryo short and straight or curved or hooked; cotyledons usually contrary to the sides of the seed.—Plants of all sizes, low or climbing or erect, sometimes enormous; spine-bearing areolae on vertical ribs. Flowers from the older or, at least, fully formed parts of the plant, not from any preformed areola, but bursting through the epidermis just above the bunches of spines; some open only in sunlight, others only at night, others again are not thus influenced. Fruit often edible, sometimes of very large size."—E.

Subgenus EUCEREUS. "Prismatic or cylindric, mostly branching: flowers usually longer than wide: stigmas whitish: seeds obovate, usually smooth or pitted: embryo with foliaceous curved cotyledons."—E.



CEREUS COLUBRINUS Otto.

CEREUS ACULEATUS Otto.

CEREUS ALAMOSENSIS Coulter.

Sina spinosa of Sonora; 2-8 feet high, 2-10 branches from the base with joints 1-4 feet long, flexuous or decumbent, often forming arches and rooting at the joints, and thus spreading over wide areas, sometimes 100 feet in diameter or more; ribs about 7, slightly tuberculated. The bright

red flowers slightly resemble those of C. flagelliformis.

CEREUS AMBLYOGONUS G. Don.

CEREUS AMECAENSIS Heese.

CEREUS ANDALGALENSIS Web.

CEREUS AREOLATUS Mueh.

Andes, South America.

CEREUS ARMATUS Otto.

CEREUS ASSURGENS Gris.

West Indies.

CEREUS AUREUS KS.

CEREUS AZUREUS Parm.

CEREUS BARBATUS Otto.

CEREUS BAUMANNII Lem.

Paraguay Republic, South America.

Variety COLUBRINA KS.

Variety FLAVISPINA KS.

Variety SMARAGDFLORA Web.

CEREUS BAXANIENSIS Karw.

Mexico.

CEREUS BENECKII Eh.

Aborescent and branching after the habit of Cereus geometrizans, 6-7 ribbed; areolae ¼ inch apart, woolly, bearing 8 radial spines ½ inch or less long, and 1 central 1-3 inches long, curved upward, all ash colored; fruit globose, ½ inch in diameter, dull purple; remains of flower usually deciduous leaving a large ash-colored scar; seeds large, 36-80 in each berry. The be-ta-zo-vo of the Indians. In aspect of plant and fruit this closely resembles the garambullo (Cereus geometrizans). Near Oaxaca, Mexico (Orcutt 270)).

CEREUS BERTINII L'Her.

Paraguay Republic, South America.

CEREUS BLANKII Pos.

CEREUS BOECKMANNII Otto.

West Indies.

CEREUS BONARIENSIS Sw.

CEREUS BONPLANDII Parm.

Paraguay Republic, South America.

CEREUS BRACHIATUS Gal.

Tehuacan, Puebla, Mexico.

Cereus bradtianus C. is Opuntia cereiformis Web fide KS.

CEREUS BRANDII H Angl.

CEREUS BRIDGESII S.

Bolivia, South America.

CEREUS CAESIUS Otto.

CEREUS CANDELARIUS Hort.

CEREUS CANDICANS Gill.

Argentine Republic.

CEREUS CAVENDISHII Monv.

CEREUS CHALYBAEUS Otto.

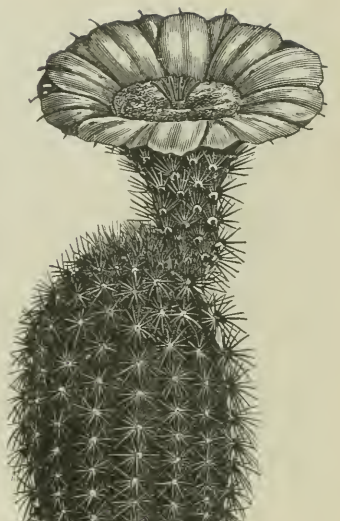
Argentine Republic.

CEREUS CHILENSUS Colla.

Chile, South America.

CEREUS CHIOTILLA Web.

Arborescent, 20 feet high, branching freely a foot or so above the ground, the older branches 6 inches in diameter, the tips of the branches 2½ inches in diameter with densely woolly ovate or shield-shaped areolae, bearing the terminal



CEREUS DASYACANTHUS Engelm.

flowers and fruit. The tree often of an umbrella shape, or the interlocking branches curving or twisting in any other than a symmetrical manner. Ribs 6-8, acute, with sharp intervals; areolae ¼ inch across, ½ inch long, nearly or quite contiguous; 1 stout, terete, ashy, central spine ¼-2 inches long or less—often 2 or 3 short centrals above ¼ inch long, erect; radials about 12, ¼ inch long, curved inward, all but the lowest laterally disposed, spines all nearly white when young. Called 'tiotilla' by the Indians, who gather quantities of the fruit for the markets of Tehuacan in June for 1 cent. Fruit 1¼ inch diameter, slightly longer, remains of the flower persistent; color dull dark red, with 25-30 thin semi-transparent triangular scales—the base and sides equal—about three-eighths of an inch; pulp dark purple, with numerous black seeds. State of Oaxaca, Mexico (Orcutt 2648, 2666). Flower 1½ inches across, bright lemon yellow (27 Je 1902).

CEREUS CLAVIFORMIS R-K.

CEREUS COERULESCENS S.

Argentine Republic.

CEREUS COLUBRINUS Otto.

An erect-growing Cuban plant, night-blooming, the fragrant white flowers 6 inches across.

CEREUS COLUMNARIS Lodd.

CEREUS COMETES Scheidu.

CEREUS CONCINNUS Hge.

CEREUS ENNEACANTHUS Engelm.

CEREUS COQUIMBANUS KS.
Chile, South America.

CEREUS CORYNE Otto.
Argentine Republic.

CEREUS COSSIRENSIS Tineo.

CEREUS CRENATUS Lab.

Cereus Cumengei Web. is gummosus.

CEREUS CURVISPINUS Bert.

CEREUS DAMARCARO Hge.

CEREUS DECORUS Lodd.

CEREUS DONKELAERI S.

CEREUS DUMORTIERI S.
Mexico.

CEREUS DUSSII KS.
Guadeloupe Island, West Indies.

CEREUS EBURNEUS S.
Jalapa, Vera Cruz, Mexico.

CEREUS EMORYI E.

San Diego's Velvet Cactus. This is one of the best-known of California cacti, the slender, thickly-set yellowish spines giving it a peculiarly beautiful appearance. The spines on the young joints are shorter, soft and flexuous; the flowers are yellowish, followed by a small edible fruit.

CEREUS ERUCA Brandegee.

"Prostrate, very rarely branched, 13-ribbed, 3-4 feet long, 3-4 inches in diamter; rooting from the under side of the older growth, decaying at one end and growing forward at the other, generally in patches of 20-30, probably originating from a common center; areolae 4-6 mm in diameter, separated about the same distance; spines about 20, stout, ash-colored, less than an inch long, the exterior cylindrical, the interior stouter, angular, somewhat and the lower central one much flattened, more than an inch long, angular, strongly reflexed. Common on the sand of Magdalena island and about San Jorge, Baja California. Its local name is 'chilenola.' The manner of growth, with uplifted heads and prominent reflexed spines, gives the plants a resemblance to huge caterpillars."—Brandegee, Cal ac pr sr 2, 2:163, t 7.

CEREUS EUCHLORUS Web.
Brazil, South America.

CEREUS EUPHORBIOIDES Haw.
Brazil, South America.

CEREUS EXTENSUS S.

CEREUS FASCICULARIS Meyen.
Peru, South America.

CEREUS FLAGELLIFORMIS Haworth.

The well-known whip-cord or Rat's-tail Cactus, so useful in hanging baskets or for grafting on columnar species; the bright rose-colored flowers are extremely attractive.

Variety LEPTOPHIS KS.

CEREUS FORBESII Otto.
Argentine Republic.

CEREUS FUNKII KS.

CEREUS GEMMATUS

CEREUS GHIESBREGHTII KS.
Mexico.

CEREUS GLAUCESCENS Tweed.

CEREUS GLAZIOVII KS.
Brazil, South America.

CEREUS GLYCIMORPHUS Orcutt.
Echinocereus glycimorphous Foerst.

CEREUS GRANDIFLORUS Haworth.

Miller, Gard Dictionary, ed. n 11. "The night-flowering cereus has gained a fame which entitles it to prominent notice, and plants might well be included in every garden, for its flowering is a source of interest to the least observant persons."—Castle.

CEREUS GRANDIS Haw.

CEREUS GREGGII Engelm.

Gregg's night blooming cactus occurs in the arid regions of Southern Arizona, New Mexico, Texas, Chihuahua and Sonora, and is notable for its large tuberous root and slender inconspicuous stems, 1 to 3 or 4 feet high, a half inch in diameter. Flower 6 inches long, 2 inches in diameter, with pale, purple petals, followed by the smooth, oval, acuminate, scarlet fruit, succulent, crowned with the remains of the corolla, and suported by a distinct stipe of a bright crimson.

CEREUS GUMMOSUS Engelm.

The pitahaya agria, or cord-wood cactus, of Lower California, is noted for its large, bright, scarlet fruit, possessing a delicious flavor, pleasantly

acid, like a strawberry, the pulp the color of a ripe watermelon, with the small black seeds scattered throughout. The flowers are 4 to 5 inches long, purple, and quite handsome. The stems are 4 to 10 feet high, 3 to 5 inches in diameter, armed with stout angular, blackish spines.

CEREUS HAAGEANUS S.

CEREUS HAMATUS Scheidw.
Near Orizaba, Mexico.

CEREUS HANKEANUS Web.

CEREUS HETERACANTHUS Tweed.

CEREUS HILDMANNIANUS KS.
State of Rio de Janeiro, Brazil.

CEREUS HIRSCHTIANUS KS.

CEREUS HOLLIANUS Weber.
"Branching from base, 4-5 m high and stout, dark-green; ribs 10-12, acute, often oblique, with areolae 2-3 cm apart; radial spines about 12, irregular, 1-1.5 cm long; centrals 3, the lower one 5-10 cm long and deflexed; flowers near the summit, white, 10 cm long; fruit as large as a goose egg, dark purplish-red, bearing wool and spines. Type Weber specimens in hb Mobot gard. Common about Tehuacan, Puebla. Important for its wood, which forms long, straight rods used for poles in hedges and vineyards."—Coulter, Cont Na hb 3:411.

CEREUS HORIZONTALIS Gill.

CEREUS HUASCHA Web.
Argentine Republic.

CEREUS HYLACANTHUS KS.
Argentine Republic

CEREUS HYPAGAEUS Web.

CEREUS INERMIS P DC.
Near La Guayra, Venezuela.

CEREUS INVERSUS Otto.

CEREUS IRRADIANS Lem.

CEREUS ISOGONUS KS.
Andes, South America.

CEREUS JACQUINII Rebut.

CEREUS JAMACARU P DC.
Brazil, South America.

CEREUS JUSBERTII Rebut.

CEREUS KARSTENII S.

CEREUS KARWINSKII Hge.

CEREUS KERBII KS.
Colima, Mexico.

CEREUS LAMPROCHLORUS Lem.
Argentine Republic.

CEREUS LANCEANUS Hort.

CEREUS LANICEPS KS.
Bolivia, South America.

CEREUS LEMAIREI Hook.
West Indies.

CEREUS LEPIDOTUS S
Near La Guayra, Venezuela.

CEREUS LEPTACANTHUS S.

CEREUS LINDBERGIANUS Web.
Paraguay Republic, South America.

CEREUS LINDMANNII Web.
Paraguay Republic, South America.

CEREUS PECTINATUS Engelm.

CEREUS LINKII Hort.

CEREUS LONGIFOLIUS Karw.

CEREUS LORMATUS Grus.

CEREUS MACDONALDIAE Hook.

CEREUS MACROGONUS S.
State of Rio de Janeiro, Brazil.

CEREUS MALLETIANUS Cels.

CEREUS MALLISONI Hort.

CEREUS MARTIANUS Zucc.

CEREUS MARTINII Lab.

CEREUS MAYNARDII Paxt.

CEREUS MELANURUS KS.
Brazil, South America.

CEREUS MICRACANTHUS P DC.

CEREUS MONVILLEANUS Web.

CEREUS MULTANGULARIS Haw.
Andes, South America, probably Peru.

CEREUS MULTIPLEX Hort.

CEREUS NAPOLEONIS R. Graham.
West Indies.
Cereus Nickelsi Hort, is Cephalocereus columna-trajani.

CEREUS NYCTICALUS Link.

CEREUS OBTUSANGULUS KS.
State of Rio de Janeiro, Brazil.

CEREUS OCAMPONIS S.

Climbing over trees, fences or houses; joints 3- to commonly 4-sided, 1 or 2 to 5 feet long, young growth even 6-ribbed; areolae 1-1½ inches apart, tomentose, commonly 7 radials and 1 central spines; radials rarely over 1 mm, central rarely 6 mm long, stout, straight or slightly curved.

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CEREUS GEOMETRIZANS Mart.

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CEREUS SARGENTIANUS Orcutt.

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CEREUS SENILIS Salm-Dyck

Stems dark green, 3 inches thick, the ribs scarcely an eighth inch thick, strongly crenulate, bearing the areolae at the summit. Flower white, style 7 inches long; stigmata 14, slender, white, nearly ½ inch long; ovary globose, an inch in diameter, covered with about 0 tubercles surmounted with minute scales (the tomentose axils commonly bearing 2 white spines); tube of corolla 5 inches long, bearing 5 or more similar scales with tomentose and spiny axils; filaments and large anthers apparently white (in dried flower), petals narrow, acuminate, 1½ inches long, extending three-fourths inch beyond the filaments. Nopale, or Nopalita de Cruz, of the Indians; 15-20 feet high; cultivated in gardens for its fruit (?). States of Puebla and Oaxaca, Mexico (Orcutt 2709).

CEREUS PAUCISPINUS E.

CEREUS PAXTONIANUS Monv.

CEREUS PERUVIANUS Mill.
Peru, South America.
Variety MONSTRUOSA P DC.

CEREUS PITAHAYA P DC.
Brazil, South America.

CEREUS PLATYCONUS Otto.

CEREUS POLYRHIZUS Web.

CEREUS POMANENSIS Web.
Argentine Republic.

CEREUS PTEROGONUS Lem.

CEREUS PULCHELLUS Pf.

CEREUS QUADRICOSTATUS Bello.
West Indies.

CEREUS QUERETARENSIS Weber.
"Tree-like, much branched, 6-8 m high; flowers 10-12 cm long; ovary covered with triangular fleshy scales which arise from a tubercle and bear axillary wool and spines; fruit densely covered with bunches of dark-yellowish or brownish spines bulbous at base. Type, Weber specimens in hb Mo bot gard. In the vicinity of Queretaro, Mexico, and cultivated along roadsides and fence rows."—Coulter, Cont Na hb 3:410.

CEREUS REPANDUS Haw.

CEREUS RIGIDISPINUS Monv.
Probably from the Andes (not Mexico, fide KS).

CEREUS RUFERI Hge.

CEREUS RUSSELLIANUS Forb.

CEREUS SALM-DYCKIANUS Web.

CEREUS SAXICOLA Morong.

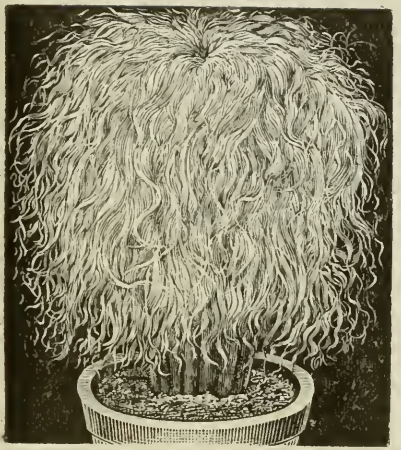
CEREUS SCHOMBURGKII Otto.

CEREUS SEPIUM P DC.

CEREUS SERPENTINUS P DC.
Mexico.

CEREUS SETACEUS S.
Brazil, South America.

Cereus simonii Hilldm, is C. alamosensis C.



OLD MAN CACTUS.

Cereus sororensis Runge, is C. alamosensis C.

CEREUS SPACHIANUS Lem.
Argentine Republic

CEREUS SPECIOSSIMUS DC.

CEREUS SPECIOSUS KS.
Variety COCCINEA KS.

CEREUS SPINULOSUS P DC.
Mexico.

CEREUS SPLENDIDUS Paxt.

CEREUS STELLATUS Pf.

CEREUS STELLIGER Otto.

CEREUS STOLONIFER Web.

CEREUS STRIATUS Brandegee.
Cereus digueti Weber, Mu d'hist nat,b, 1895, 319.
Apparently not rare in saline soil near Batamotal, Sonora, where it is known by the name sa-ra-ma-tra-ca; the tubers are produced abundantly like small potatoes.

CEREUS STRIGOSUS Gill.
Argentine Republic.

CEREUS SUBFLAVISPINUS Otto.

CEREUS SUBINERMIS Hem.

CEREUS SUBINTORTUS Otto.

CEREUS TENUISSIMUS G. Don.

CEREUS TEPHRACANTHUS Lab.
Bolivia, South America.

CEREUS TETAZO Weber.
"Stout, branching, 10-15 m high; flowers greenish-white, 6 cm long, in clusters of 10-20 from the youngest areolae and without any wool; fruit irregularly dehiscent, exposing the ripe pulp. Type, Weber specimens in hb Mo bot gard. Zapatalan, Jalisco."—Coulter, Cont Na hb 3:409.

CEREUS TETRAGONUS Haw.

CEREUS TORTUOSUS Forb.
Argentine Republic.

CEREUS TRIGONUS Haw.

West Indies.

CEREUS TRINITATENSIS Lem.

CEREUS TUBEROSUS Pos.

CEREUS UNDULATUS H. Dresd.

CÉREUS VERSCHAFFELTII Hge.

CEREUS VIRENS P DC.

Subgenus LEPIDOCEREUS E. Tall cylindrical branching plants with the floriferous and steril areolae bearing similar spines; flower tube short, stigmas white, embryo curved.

Cereus bavosus Web.

Erect, rarely branching, 8-12 or more stems from the same root, 10 or more feet high, 4 inches in diameter; ribs 9, slightly obtuse with sharply defined intervals; areolae an inch apart on the older stems; radial spines 15, ¼-½ inch long, the lower ones the longer, on the old growth all stout and about ½ inch long; central spines 4-6, the upper one-eighth inch long or more, the lowest often 3 inches long, deflexed, twisted, flattened or carinate. Flower 2 inches across, including the ovary 4 inches long; petals white, obtuse, 1½ inches long, the 6 stigmata, style and anthers pale yellow, filaments white; style 2 inches long. Fruit said to be red, 4 inches long, with black seeds; immature fruit with about 150 woolly areolae with capillary spines in the axils of obsolete scales or tubercles. State of Puebla, Mexico (Orcutt 2625). Called 'cardon' by the Indians, perhaps erroneously.

CEREUS CANDELABRUM Web.

Arborescent, 25 feet high, trunk 1-2 feet in diameter, branching freely 3-5 feet from the ground, producing often 50 erect growing stems in candelabra form shading an area greater in diameter than the height of the tree. Branches a foot in diameter, 9-10 obtuse ribs with areolae 1½ inch apart, when young, and densely tomentose at the base of spines; the older areolae but slightly tomentose, the bases of the spines often in close contact; spines ashy, bulbous at base, flattened or angular, strong; the central 2 inches long 7-9 radials, usually 3 laterally disposed on each side and one below the central, and more rarely 1-2 shorter radials above; spines mostly deciduous on the trunk and older branches, the persistent areolae often enormously enlarged to a height and diameter of 1-2 inches with 10-20 formidable subulate spines, the longest 3 inches or more long. Flower white, much resembling that of C. Pringlei; fruit ripens in the middle of May, dull red 3 inches long, 2 and 2½ in greater and lesser diameter, pulp purplish, sweet, edible, but valued less than the pitalla and other cactus fruits. About 30 triangular scales, bearing in the axils densely woolly areolae with 35 or more slender, bristly straight, white spines ¼-½ inch long, form the armament of the fruit—the spiny areolae easily detached (or deciduous?) at maturity. Fruit said to be used in making a pleasant drink and the seeds also utilized. The erect growth of the numerous branches and the bright glaucous color renders this giant cactus everywhere conspicuous. State of Oaxaca, Mexico (Orcutt 2673). Known to the Indians as the 'cardon'.

CEREUS ORCUTTII K Br.

"Stems erect, branching, bright green, reaching a hight of 5 m and a diameter of 25 cm, with hard woody center; ribs 15-18, about 1 cm high; areolae round, about 5 mm in diameter and about half that distance apart, densely covered with short, light gray wool; spines all slender, spreading, yellowish brown, irregularly bi-seriate; radials 12-20, about 12 mm long, deficient above; intermediates about 10, one-third to more than twice longer, less spreading, one of the upper spines of this row usually stouter and darker, porrect, often reaching a length of 7 cm; centrals about 5, porrect-spreading a little longer than the intermediates; flowers greenish brown, darker outside, diurnal, about 4 cm entire length; petals short apiculate; ovary densely covered with short scales, almost completely concealed by thick, rounded tufts of yellowish wool, in which are embedded dark brown bristles 4-6 mm long; stamens lining the upper half of the tube; style tipped acute; fruit not known."—Katharine Brandegee, Zoe, 5:38 (Je 1900).

Near Rosario, Baja California. Densely covered with bright yellowish brown spines; fruit the 'size of an orange'; called pitalla dulce.

CEREUS PRINGLEI S. Watson.

The Cardon is the giant cactus of Lower California and Sonora, where it forms forests, attaining a height of 20 to 35 feet. The ribs are usually 13, and it differs from the giant cactus of Arizona (Cereus giganteus) in that the spine bearing areolae on the ribs are connected by wooly grooves. The trunk is often 3 to 4 feet in diameter; the older portions of the branches usually quite thornless. The dead wood is used for fuel, but otherwise this mammoth production of the desert seems to be without use.

CEREUS THURBERI Engelm.

The Pitahaya Dulce is an abundant species in Sonora and portions of Lower California, also said to occur in southern Arizona. It grows from 5 to 20 feet high, many stems 6 to 10 inches in diameter from the same base, bearing greenish or reddish white white flowers followed by large luscious fruit, rather too sweet it is said for northern palates. It was named in honor of George Thurber, a widely renowned botanist.

Subgenus PILOCEREUS E. "Tall, cylindric, mostly unbranched; upper flower-bearing portion with more crowded areolae and longer, denser, thinner bristles or hairy spines: flowers short: seeds as in Eucereus."—E.

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